

Application No.: 10/057,606

Docket No.: 22106-00038-US1

**REMARKS**

Claims 21-47 are now in the application. The newly-presented claims are for the purpose of clarifying the invention and not to limit the scope of protection. For instance, Claim 21 corresponds to original generic Claim 1 except that the preferred range of concentration of C has been omitted and is now recited in new Claim 22. In a similar manner, the newly-presented Claims no longer recite the terms "such as" and "preferably." Preferred ranges and/or components are now recited in dependent claims.

The rejection of claims 1-20 under 35 USC 112, second paragraph has been overcome by the newly-presented claims which did not recite "such as " or "preferably."

The rejection of Claim 15 under 35 USC 101 is no longer applicable since the newly-presented claim does not recite "use of."

Claims 1-11 and 14-20 were rejected under 35 USC 103(a) as being unpatentable over US Patent 6,521,717 to Stoh alone or in lieu of US Patent 5,883,199 to McCarthy. The cited references do not render obvious the present invention.

Itoh suggests a binary mixture of an aromatic-aliphatic polyester like component A of the invention and an aliphatic polyester like component B of the invention. However, such binary mixture fails to provide a biodegradable polymer composition with the desired balance of mechanical and optical properties as achievable by the present invention.

Typical properties of binary mixtures of the kind A+B are given in Table 2 of the specification as comparative examples 3a-3d. The main drawback is the strong anisotropic behavior as to tear resistance of a film in the longitudinal and transverse directions. This is reflected by the Elmendorf test, particularly by the ratio  $E_{\text{cross}}/E_{\text{long}}$ . When the film is not anisotropic, the values of  $E_{\text{cross}}/E_{\text{long}}$  do not differ significantly and their ratio is close to 1 (see values of Table 1). In contrast, when the values differ greatly, the ratio of  $E_{\text{cross}}/E_{\text{long}}$  is quite remote from 1, as reported in Table 2 with respect to comparative examples 3a-3c (in example

Application No.: 10/057,606

Docket No.: 22106-00038-US1

3d such value was even not measured), where it varies from 27.8 to 35.7. This strong anisotropy represents a significant drawback in the use of the film, as appreciated by those persons skilled in the art. The above drawback is overcome by the ternary mixture of the present invention. Moreover, Itoh's preferred aliphatic polyesters (B) are obtained from aliphatic dicarboxylic acids with 2 to 6 carbon atoms (see column 6, lines 24-26), while the preferred diacids according to the present invention have more than 5 carbon atoms.

McCarthy fails to overcome the above deficiencies of Itoh with respect to rendering obvious the present invention. McCarthy suggests a binary mixture of polylactic acid like component C of the invention and aliphatic polyesters like component B of the invention. However, such binary mixture fails to provide a biodegradable polymer composition with the desired balance of mechanical and optical properties as achievable by the present invention. Typical properties of binary mixtures of the kind B+C are given in Table 2 as comparative examples 1a-1c. The main drawback is the poor tear resistance in both the longitudinal and transverse direction as reflected by the Elmendorf test. Both  $E_{\text{cross}}/E_{\text{long}}$  are always less than 11, and in most cases less than 9, while the mixture of the present invention shows substantially higher values.

It was not obvious, and therefore, not expected, that a ternary mixture of A+B+C would have been capable of producing films in which the strong anisotropy of mixtures A+B disappears without retaining the low tear values in the longitudinal and cross directions typical of mixtures B+C. In other words, a person skilled in the art was confronted with the following dilemma: either accept the anisotropy of binary mixtures A+B, or accept the poor tear resistance of binary mixtures B+C. The art fails to suggest making a mixture of A+B+C, since it could have resulted in a combination of anisotropy and low tear values. In contrast, the mixtures of the invention surprisingly offer a good balance of both properties, together with good optical properties (transparency) and biodegradability.

The art does not provide any suggestion that the problems addressed would or could be overcome by the mixture of the present invention. The art lacks the motivation to combine McCarthy with Stoh in order to overcome the problems of the prior art.

Application No.: 10/057,606

Docket No.: 22106-00038-US1

The mere fact that the cited art may be modified in the manner suggested by the Examiner does not make this modification obvious, unless the cited art suggests the desirability of the modification. No such suggestion appears in the cited art in this matter. The Examiner's attention is kindly directed to *In re Lee* 61 USPQ2d 1430 (Fed. Cir. 2002) *In re Dembiczak et al.* 50 USPQ2d. 1614 (Fed. Cir. 1999), *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984), *In re Laskowski*, 10 USPQ2d. 1397 (Fed. Cir. 1989) and *In re Fritch*, 23, USPQ2d. 1780 (Fed. Cir. 1992).

In *Dembiczak et al.*, supra, the Court at 1617 stated: "Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., *C.R. Bard, Inc., v. M3 Sys., Inc.*, 157 F.3d. 1340, 1352, 48 USPQ2d. 1225, 1232 (Fed. Cir. 1998) (describing 'teaching or suggestion motivation [to combine]' as in 'essential evidentiary component of an obviousness holding'), *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d. 1453, 1459 (Fed. Cir. 1998) ('the Board must identify specifically...the reasons one of ordinary skill in the art would have been motivated to select the references and combine them');..."

Also, the cited art lacks the necessary direction or incentive to those of ordinary skill in the art to render the rejection under 35 USC 103 sustainable. The cited art fails to provide the degree of predictability of success of achieving the properties attainable by the present invention needed to sustain a rejection under 35 USC 103. See *Diversitech Corp. v. Century Steps, Inc.* 7 USPQ2d 1315 (Fed. Cir. 1988), *In re Mercier*, 185 USPQ 774 (CCPA 1975) and *In re Naylor*, 152 USPQ 106 (CCPA 1966).

Moreover, the properties of the subject matter and improvements which are inherent in the claimed subject matter and disclosed in the specification are to be considered when evaluating the question of obviousness under 35 USC 103. See *Gillette Co. v. S.C. Johnson & Son, Inc.*, 16 USPQ2d. 1923 (Fed. Cir. 1990), *In re Antonie*, 195, USPQ 6 (CCPA 1977), *In re Estes*, 164 USPQ (CCPA 1970), and *In re Papesch*, 137 USPQ 43 (CCPA 1963).

Application No.: 10/057,606

Docket No.: 22106-00038-US1

No property can be ignored in determining patentability and comparing the claimed invention to the cited art. Along these lines, see *In re Papesch*, supra, *In re Burt et al*, 148 USPQ 548 (CCPA 1966), *In re Ward*, 141 USPQ 227 (CCPA 1964), and *In re Cescon*, 177 USPQ 264 (CCPA 1973).

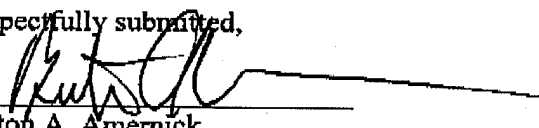
In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event that the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Commissioner is hereby authorized to charge any fees or credit any overpayment associated with this communication including any extension fees to Deposit Account No. 22-0185.

Dated: August 12, 2003

Respectfully submitted,

By   
Burton A. Amernick

Registration No.: 24,852  
CONNOLLY BOVE LODGE & HUTZ LLP  
1990 M Street, N.W., Suite 800  
Washington, DC 20036-3425  
(202) 331-7111  
(202) 293-6229 (Fax)  
Attorney for Applicant

**OFFICIAL**